

Tasks to Tailor Bay Area Hydrology Model to San Mateo County

EOA, Inc. will contract with Clear Creek Solutions to perform the three tasks described below. This work is necessary to tailor the Bay Area Hydrology Model for use in San Mateo County. The task descriptions are excerpted from Clear Creek Solutions December 9, 2005 proposal.

“Task 1. Data acquisition and review of San Mateo watershed characteristics.

Data acquisition is the analysis and selection of appropriate hydrologic and meteorologic station records for use in both watershed calibration/validation and the model’s long-term database.

San Mateo County GIS data including streets, water bodies, isohyetal, and topographic information will be obtained from STOPPP and reviewed. The GIS data will be used for the San Mateo map screen in the BAHM and the extension of parameter values for the county (Task 2).

Task 2. Extension of parameter values for entire San Mateo County.

Based on information collected in Task 1, the hydrology parameter values determined in Alameda and/or Santa Clara County will be extended to San Mateo County based on the same types of regional information, including climate, soils, vegetation, etc.

Long-term (30+ years) precipitation data will be reviewed. Selected representative precipitation records will be added to the STOPPP model’s meteorologic database. Preference will be given to records that are 30 or more years in length, have little or no missing data, and accurately represent the rainfall of a significant portion of San Mateo County. Site-specific precipitation will be scaled up or down from the appropriate nearby precipitation record using a scaling ratio derived from isohyetal and storm patterns.

Long-term evaporation data is required by the model and local San Mateo County pan evaporation data will be sought. If no local pan evaporation data are available then we will use the Los Alamitos Recharge Facility class A evaporation pan data in Santa Clara County or other available data.

The HSPF parameter values, precipitation records and ratios, and pan evaporation record and ratios will be linked in the database to the San Mateo County map. A draft technical memo will summarize the procedures and assignments resulting from this subtask.

Task 3. Review and coordination.

We expect that there will be the need for general review and coordination of work products as they relate to the above two tasks. This includes conference calls, email response to review comments on all draft technical memos, and additional preparation of responses to comments by possible reviewers on final technical memos for Tasks 1 and 2, coordination of San Mateo County modeling recommendations with regional activities for adaptation of a Bay Area Hydrology Model similar to the WWHM, and other administrative tasks as needed.”